

FORM PTO-1390
(REV 5-93)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER
3036/49686

TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

09/763360

INTERNATIONAL APPLICATION NO.
PCT/GB99/04354INTERNATIONAL FILING DATE
21.12.99 (21 December 1999)PRIORITY DATE CLAIMED
21.12.98 (21 December 1998)

TITLE OF INVENTION: ACOUSTICALLY ACTIVATED MARKETING DEVICE

APPLICANT(S) FOR DO/EO/US: Nicholas WEBB; Stephen Philip ROWE and John MANSBRIDGE


Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☐ This express request to begin national examination procedures (35 U.S.C. 371(f) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
4. ☐ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2)).
 - a. ☒ is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ has been transmitted by the International Bureau
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US)
6. ☐ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
 - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ have been transmitted by the International Bureau.
 - c. ☐ have not been made, however, the time limit for making such amendments has NOT expired.
 - d. ☐ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). (UNEXECUTED - 2 pages)
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Item 11. to 16. below concern other document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A FIRST preliminary amendment.
☐ A SECOND or SUBSEQUENT preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items or information: 1st page of published PCT International Application; 1 sheet of drawings showing Figs. 1 and 2; PCT Notification of Transmittal of The International Search Report; International Search Report



U.S. APPLICATION NO (if known, see 37 CFR 1.5) 09/763360		INTERNATIONAL APPLICATION NO PCT/GB99/04354		ATTORNEY'S DOCKET NUMBER 3036/49686	
17. <input type="checkbox"/> The following fees are submitted: Basic National Fee (37 CFR 1.492(a)(1)-(5)):				CALCULATIONS	
Search Report has been prepared by the EPO or JPO \$860.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) ... \$690.00 No international preliminary examination fee paid to USPTO (37 CFR 1.482) but international search fee paid to USPTO (37 CFR 1.445(a)(2)) ... \$710.00 Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO ... \$1000.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4) ... \$100.00				\$860.00	
ENTER APPROPRIATE BASIC FEE AMOUNT =				\$860.00	
Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$130.00	
Claims	Number Filed	Number Extra	Rate		
Total Claims	20- 20 =		X \$18.00	\$	
Independent Claims	2- 3 =		X \$80.00	\$	
Multiple dependent claims(s) (if applicable)			+ \$270.00	\$	
TOTAL OF ABOVE CALCULATIONS =				\$130.00	
Reduction by 1/2 for filing by small entity, if applicable. Verified Small Entity statement must also be filed. (Note 37 CFR 1.9, 1.27, 1.28).				\$	
SUBTOTAL =				\$990.00	
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				+	
TOTAL NATIONAL FEE =				\$990.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28.3.31). \$40.00 per property +				\$	
TOTAL FEE ENCLOSED =				\$990.00	
				Amount to be: \$	
				refunded	
				charged \$	
a. <input checked="" type="checkbox"/> A check in the amount of \$ 990.00 for the filing fee is enclosed b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees, which may be required, or credit any overpayment to Deposit Account No. <u>05-1323</u> (Attorney Docket No. 3036/49686). A duplicate copy of this sheet is enclosed. NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status. SEND ALL CORRESPONDENCE TO: Evenson, McKeown, Edwards & Lenahan, P.L.L.C. 1200 G Street, N.W., Suite 700 Washington, D.C. 20005 Tel. No. (202) 628-8800 Fax No. (202) 628-8844					
				SIGNATURE  Gary R. Edwards NAME 31,824 REGISTRATION NUMBER 21 February 2001 DATE	

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JG03 Rec'd PCT/PTO 21 FEB 2001

Attorney Docket: 3036/49686
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: NICHOLAS WEBB ET AL.
Serial No.: NOT YET ASSIGNED PCT/GB99/04354
Filed: February 21, 2001
Title: ACOUSTICALLY ACTIVATED MARKETING DEVICE

PRELIMINARY AMENDMENT

Box PCT

February 21, 2001

Commissioner for Patents
Washington, D.C. 20231

Sir:

Please enter the following amendments to the claims, prior to the examination of the application during the U.S. National Phase.

IN THE CLAIMS:

Please cancel Claim 21, without prejudice to or disclaimer of the subject matter thereof, and amend the remaining claims as follows:

(A copy of the marked up version of amended claims are attached as an appendix to this amendment.)

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Serial No.

4. (Amended) Apparatus as claimed in Claim 1, wherein said received signal is in digital format.

6. (Amended) Apparatus as claimed in Claim 1, wherein said received signal is broadcast by a commercial broadcasting means.

10. (Amended) Apparatus as claimed in Claim 1, wherein said apparatus further includes programming means coupled to said activation means and arranged for programming said predefined signal and said predefined information.

11. (Amended) Apparatus as claimed in Claim 1, wherein said display means is a liquid crystal display.

12. (Amended) Apparatus as claimed in Claim 1, wherein said activation means is an application specific integrated circuit.

13. (Amended) Apparatus as claimed in Claim 1, wherein said apparatus further includes an analogue to digital interface means, a programmable digital processor and battery means.

15. (Amended) Apparatus as claimed in Claim 1, wherein said predefined information is an advertisement.

Serial No.

16. (Amended) Apparatus as claimed in Claim 1, wherein said predefined information is a message.

19. (Amended) Method as claimed in Claim 17, wherein said received signal is an acoustic signal.

20. (Amended) Method as claimed in Claim 17, wherein said received signal is a commercially broadcast signal.

IN THE ABSTRACT:

Please add an Abstract of the Disclosure submitted herewith on a separate page.

REMARKS

Entry of the amendments to the claims, before examination of the application in the U.S. National Phase is respectfully requested.

If there are any questions regarding this Preliminary Amendment or this application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

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Serial No.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #3036/49686).

Respectfully submitted,



Gary R. Edwards
Registration No. 31,824

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09763360-000901

Serial No.

ABSTRACT OF THE DISCLOSURE

An acoustically activated marketing for displaying predefined information in response to predefined data being received. The device is obtained from a retailer and worn as a badge while at the cinema or while listening to the radio or TV. When a specific advertisement is broadcast, the badge interprets part of the sound track and activates the display on the badge. The displayed information may be an advertisement or a message. The predefined data may be broadcast by a commercial broadcasting means, such as a television or radio.

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Appendix to Amendment

(Marked up version of amended claims)

4. (Amended) Apparatus as claimed in [any preceding Claim,] Claim 1, wherein said received signal is in digital format.

6. (Amended) Apparatus as claimed in [any preceding Claim,] Claim 1, wherein said received signal is broadcast by a commercial broadcasting means.

10. (Amended) Apparatus as claimed in [any preceding Claim,] Claim 1, wherein said apparatus further includes programming means coupled to said activation means and arranged for programming said predefined signal and said predefined information.

11. (Amended) Apparatus as claimed in [any preceding Claim,] Claim 1, wherein said display means is a liquid crystal display.

12. (Amended) Apparatus as claimed in [any preceding Claim,] Claim 1, wherein said activation means is an application specific integrated circuit.

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13. (Amended) Apparatus as claimed in [any preceding Claim,] Claim 1, wherein said apparatus further includes an analogue to digital interface means, a programmable digital processor and battery means.

15. (Amended) Apparatus as claimed in [any preceding Claim,] Claim 1, wherein said predefined information is an advertisement.

16. (Amended) Apparatus as claimed in [any of Claims 1-15,] Claim 1, wherein said predefined information is a message.

19. (Amended) Method as claimed in [Claims 17 or 18,] Claim 17, wherein said received signal is an acoustic signal.

20. (Amended) Method as claimed in [any of Claims 17 - 19,] Claim 17, wherein said received signal is a commercially broadcast signal.

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JC03 Rec'd PCT/PTO 21 FEB 2001

ACOUSTICALLY ACTIVATED MARKETING DEVICE

The present invention relates to an acoustically activated marketing device.

The consumer obtains the device from a retailer. He/she wears the device as a badge while at the cinema or while listening to the radio or TV. When a specific advert is broadcast the badge interprets part of the sound track and activates the display on the badge.

According to the present invention there is provided apparatus for displaying information, said apparatus including display means and activation means, said activation means being coupled to said display means such that upon reception of predefined data said activation means causes said display means to display predefined information.

Said predefined data may be transmitted by an acoustic signal.

Said acoustic signal may be digitally modulated.

According to a further aspect of the present invention said predefined data is broadcast by a commercial broadcasting means. Said commercial broadcasting means may be a television broadcasting means. Alternatively, said commercial broadcasting means may be a radio broadcasting means.

According to yet a further aspect of the present invention, said apparatus further includes programming means for programming said predetermined data and said predefined information.

Said display means may be a liquid crystal display.

Said activation means may be an application specific integrated circuit.

Said apparatus further include a microphone means, an analogue to digital interface means, a programmable digital processor and a battery. Said battery may be a button cell type battery.

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According to an aspect of the present invention, said predefined information may be an advertisement. Alternatively, said predefined information may be a message.

According to a further aspect of the present invention, there is provided a method for displaying information, said method including the steps of: receiving data, comparing said received data with predefined data, and upon said received data matching said predefined data, displaying predefined information.

According to a further aspect of the present invention said data is transmitted by an acoustic signal.

Said acoustic said maybe digitally modulated.

According to yet a further method aspect, said acoustic signal is part of a commercial broadcast. Said commercial broadcast may be a television broadcast. Alternatively, said commercial broadcast may be a radio broadcast.

While the principle advantages and features of the invention have been described above, a greater understanding and appreciation of the invention may be obtained by referring to the drawings and detailed description of the preferred embodiment, presented by way of example only, in which;

Figure 1 shows the display means of an acoustically activated marketing device according to one aspect of the present invention,

Figure 2 shows the electronic layout of an acoustically activated marketing device according to one aspect of the present invention.

In Figure 1 an acoustically activated marketing device (10) is shown comprising a low-cost display (12). The display (12) may be a liquid crystal display. The device (10) operates such that upon reception of predefined data, the display (12) displays predefined information. This

information may be an advertisement such as a cocktail glass (14) or a message indicating that a prize has been won.

The device can be configured such that different data triggers different messages. For example, data X may trigger a message that indicates a prize has been won, while data Y may trigger a message that indicates that no prize has been won.

Alternatively, different badges can be configured to respond differently to the same data. For example, upon reception of the same data, one badge may indicate that a prize had been won, while another badge may not.

In Figure 2 the electronics layout (20) of an acoustically activated marketing device (10) is shown. In this aspect of the present invention the electronics layout includes a microphone element (22) connected to an A/D interface (24). The microphone elements operate to detect a predefined acoustic signal. The device (10) further includes a programmable digital processor (26) which allows for a variety of acoustic signals and corresponding display information to be programmed into the device. Thus a single device can be mass-produced and then programmed in the factory to satisfy a variety of different customer's needs.

The device (10) further comprises a battery source (28). In this embodiment of the present invention the battery source is a button type battery.

As will be appreciated, when the predefined information is displayed the consumer may be in an area of high noise, for example; in the midst of conversation in a cinema or at home, or when driving in a car. This noise may mask the predefined data and prevent the display means from being activated. Ideally, this should not be greater than 1 non-activation out of 10 or 20 occasions.

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As will be appreciated, while the consumer is wearing the badge, it will be subject to many different sources of noise, for example; conversation, music and car noise. These could, by chance, contain a sequence of sounds that are sufficiently like the predefined signal to trigger the device. The probability of this type of 'false alarm' occurring can be reduced by increasing the complexity of the predefined data, but this may be at the expense of battery life or badge cost. Ideally, less than 1 in 100 badges should be unintentionally activated during their lifetimes.

The required operating lifetime of the badge is expected to be application-dependent. Long operating lifetimes will require higher cost batteries or lower power circuits.

To minimise the production cost, an application specific integrated circuit (ASIC) can be developed. To reduce packaging costs the ASIC can be directly mounted on the printed circuit board and then protected from the atmosphere by a layer of plastic. For this type of ASIC to be viable, large production runs will be necessary. The requirement for such runs will make it more difficult to adapt the ASIC to a different application. Some degree of programmability may be possible, however this may require the use of a more expensive production process.

As will be appreciated by those skilled in the art, various modifications may be made to the embodiment hereinbefore described without departing from the scope of the present invention.

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CLAIMS

1. Apparatus for displaying information, said apparatus including display means and activation means, said activation means being coupled to said display means such that upon reception of predefined data said activation means causes said display means to display predefined information.
2. Apparatus as claimed in Claim 1, wherein said predefined data is transmitted by an acoustic signal.
3. Apparatus as claimed in Claim 2, wherein said acoustic signal is digitally modulated.
4. Apparatus as claimed in Claims 1-3, wherein said predefined data is broadcast by a commercial broadcast means.
5. Apparatus as claimed in Claim 4, wherein said commercial broadcasting means is Television broadcasting means.
6. Apparatus as claimed in Claim 4, wherein said commercial broadcasting means is Radio broadcasting means.
7. Apparatus as claimed in any preceding Claim, wherein said apparatus further includes programming means for programming said predefined data and said predefined information.

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8. Apparatus as claimed in any preceding Claim, wherein said display means is a liquid crystal display.
9. Apparatus as claimed in any preceding Claim, wherein said activation means is an application specific integrated circuit.
10. Apparatus as claimed in any preceding Claim, wherein said apparatus further includes a microphone means, an analogue to digital interface means, a programmable digital processor and a battery.
11. Apparatus as claimed in any preceding Claim, wherein predefined information is an advertisement.
12. Apparatus as claimed in any of Claims 1-11, wherein said predefined information is a message.
13. Method for displaying information, said method including the steps of:
- receiving data,
 - comparing said received data with predefined data,
 - and upon said received data matching said predefined data,
 - displaying predefined information.
14. Method as claimed in Claim 13, wherein said data is transmitted by an acoustic signal.
15. Method as claimed in Claim 14, wherein said acoustic signal is digitally modulated.

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16. Method as claimed in Claims 14-15, wherein said acoustic signal is part of a commercial broadcast.

17. Method as claimed in Claim 15, wherein said commercial broadcast is an advertisement.

18. Method as claimed in Claims 16-17, wherein said commercial broadcast is a television broadcast.

19. Method as claimed in Claims 16-17, wherein said commercial broadcast is a radio broadcast.

20. Apparatus as hereinbefore described with reference to the accompanying drawings.

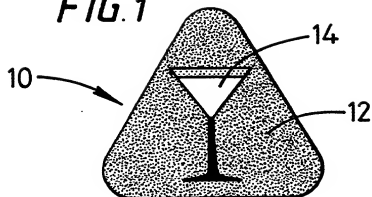
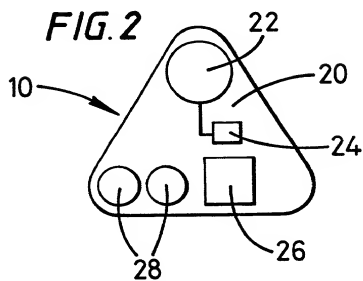
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ABSTRACT

An acoustically activated marketing for displaying predefined information in response to predefined data being received. The device is obtained from a retailer and worn as a badge while at the cinema or while listening to the radio or TV. When a specific advert is broadcast the badge interprets part of the sound track and activates the display on the badge. The displayed information may be an advertisement or a message. The predefined data may be broadcast by a commercial broadcasting means, such as a television or radio.

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FIG. 1**FIG. 2**

COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY
(includes Reference to PCT International Applications)

ATTORNEY'S DOCKET NUMBER
3036/49686

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

ACOUSTICALLY ACTIVATED MARKETING DEVICE

the specification of which (check only one item below):

☐ is attached hereto.

☐ was filed as United States application

Serial No. _____
on _____
and was amended
on _____ (if applicable).

☒ was filed as PCT international application

Number PCT/GB99/04354
on 21 December 1999 (21.12.99)
and was amended under PCT Article 19
on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United State Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. 119:

COUNTRY (if PCT indicate PCT)	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 USC 119
Great Britain	9828101.7	21 December 1998 (21.12.98)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Great Britain	9907626.7	6 April 1999 (06.04.99)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No

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